

13. (Twice Amended) A reproduction method of an information storage medium comprising: a plurality of unit audio information to be reproduced independently of each other; aggregate audio information each including one or more of the unit audio information; and unit attribute information indicating attributes of the unit audio information included in the aggregate audio information, the method comprising:

reading the unit attribute information corresponding to the aggregate audio information recorded on the storage medium to produce an aggregate attribute information table aggregating the unit attribute information collectively;

storing the aggregate attribute information table produced into a storage unit;

receiving, from a user, a reproduction instruction designating a plurality of unit audio information to be reproduced successively;

setting the attribute for the reproduction based on the aggregate attribute information table stored in the storage unit; and

reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproducing step comprising the steps of:

obtaining the attributes corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information table stored in the storage unit;

determining whether or not the attributes of the unit audio information to be successively reproduced are identical; and

starting an attribute setting of the unit audio information to be reproduced next immediately after the reproduction of the unit audio information currently reproduced, if it is determined in the determining step that the attributes are different.

19. An information storage medium comprising:
- a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information;
  - a plurality of audio tracks, each audio track comprising one or more audio packs;
  - a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks of the plurality of audio tracks; and
  - a centralized audio attribute information area containing an aggregation of the audio attribute information from the plurality of audio management information areas.
20. The information storage medium according to Claim 19, wherein the centralized audio attribute information area comprises one or more groups of grouped audio attribute information, each group of the grouped audio attribute information including:
- a group number;
  - one or more track numbers;
  - a start address and an end address of an audio track of the plurality of audio tracks corresponding with each track number; and
  - audio attribute information the audio track corresponding with each track number.

21. The information storage medium according to Claim 19, wherein the information storage medium is a digital versatile disk and the centralized audio attribute information area is located within a video manager area of the digital versatile disk.

22. A reproduction apparatus for the information storage medium according to Claim 19, the reproduction apparatus comprising:  
a reading unit for reading information from the information storage medium;  
a storage unit for storing the aggregation of audio attribute information read by the reading unit;  
an input unit for receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively; and  
a reproduction unit for setting audio attributes for the reproduction of the designated audio tracks based on the aggregation of audio attribute information stored in the storage unit and for reproducing the designated audio tracks in accordance with the audio attributes set.

23. The reproduction apparatus according to Claim 22 wherein said reproduction unit comprises:

an obtaining unit for obtaining the audio attributes corresponding to each audio track of the plurality of designated audio tracks from the aggregation of audio attribute information stored in the storage unit;

a determining unit for determining whether or not the obtained audio attributes of the designated audio tracks to be successively reproduced are identical; and

an attribute change unit for changing an audio attribute setting of a next audio track to be reproduced next immediately after the reproduction of a current audio track currently reproduced, if the determining unit determines that the audio attributes are different.

24. The reproduction apparatus according to Claim 23, wherein the reproduction unit further comprises:

a search unit for transferring the reading unit to a track position on the information storage medium of the next audio track after the reproduction of the current audio track

wherein the reproduction unit starts reproduction of the next audio track after a predetermined waiting time has passed from the start of the transfer of the reading unit.

25. The reproduction apparatus according to Claim 24, wherein the waiting time is longer than a time required to change the audio attributes set by the attribute change unit.

26. A reproduction method for the information storage medium according to Claim 19, the method comprising the steps of:

reading the aggregation of audio attribute information from the centralized audio information area on the information storage medium;  
storing the aggregation of audio attribute information in a storage unit;

receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively;  
setting the audio attributes for the reproduction of the designated audio tracks based on the aggregation of audio information stored in the storage unit; and  
reproducing the designated audio tracks in accordance with the audio attributes set.

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27. The reproduction method of Claim 26, wherein said reproducing step comprises the steps of:

obtaining the audio attributes corresponding to each audio track of the plurality of designated audio tracks from the aggregation of audio attribute information stored in the storage unit;  
determining whether or not the audio attributes of the designated audio tracks to be reproduced successively are identical; and  
changing an audio attribute setting of a next audio track to be reproduced next immediately after the reproduction of a current audio track currently reproduced, if it is determined in the determining step that the audio attributes are different.

28. The reproduction method of Claim 27, wherein said reproducing step further comprises:

transferring a information reading position to a track position on the information storage medium of the next audio track immediately after the reproduction of the current audio track; and

starting reproduction of the next audio track after a predetermined waiting time has passed from the start of the transfer of the information reading position.

29. The reproduction method of Claim 28, wherein the waiting time is longer than a time required to change the attribute setting.

30. A reproduction apparatus for an information storage medium comprising: a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information; a plurality of audio tracks, each audio track comprising one or more audio packs; a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks of the plurality of audio tracks, the reproduction apparatus comprising:  
a reading unit for reading information from the information storage medium;  
a table producing unit for obtaining the audio attribute information from one or more of the audio management information areas and for producing an centralized audio attribute information table aggregating the audio attribute information collectively;  
a storage unit for storing the centralized audio information table produced by the table producing unit;  
an input unit for receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively; and

a reproduction unit for setting the audio attributes for the reproduction based on the centralized audio attribute information table stored in the storage unit and for reproducing the designated audio tracks in accordance with the audio attributes set.

31. The reproduction apparatus according to Claim 30, wherein said reproduction unit comprises:

an obtaining unit for obtaining the audio attributes corresponding to each audio track of the plurality of designated audio tracks from the centralized audio information table stored in the storage unit;

a determining unit for determining whether or not the obtained audio attributes of the designated audio tracks to be successively reproduced are identical; and

an attribute change unit for changing an audio attribute setting of a next audio track to be reproduced next immediately after the reproduction of a current audio track currently reproduced, if the determining unit determines that the audio attributes are different.

32. The reproduction apparatus according to Claim 31, wherein the reproduction unit further comprises:

a search unit for transferring the reading unit to a track position on the information storage medium of the next audio track after the reproduction of the current audio track,

wherein the reproduction unit starts reproduction of the next audio track after a predetermined waiting time has passed from the start of the transfer of the reading unit.

33. The reproduction apparatus according to Claim 32, wherein the waiting time is longer than a time required to change the audio attributes set by the attribute change unit.

34. A reproduction method of an information storage medium comprising: a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information; a plurality of audio tracks, each audio track comprising one or more audio packs; a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks, the method comprising:

reading the audio attribute information from one or more audio management information areas of the plurality of audio management information areas to produce an centralized audio attribute information table containing an aggregation of the audio attribute information;

storing the centralized audio attribute information table produced into a storage unit;

receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively;

setting the audio attributes for the reproduction of the designated audio tracks based on the centralized audio attribute information table stored in the storage unit; and

reproducing the designated audio tracks in accordance with the audio attributes set.



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35. The reproduction method according to Claim 34, wherein said reproducing step comprising the steps of:  
obtaining the audio attributes corresponding to each audio track of the plurality of designated audio tracks from the centralized audio attribute information table stored in the storage unit;  
determining whether or not the audio attributes of the audio tracks to be successively reproduced are identical; and  
changing an audio attribute setting of a next audio track to be reproduced next immediately after the reproduction of a current audio track currently reproduced, if it is determined in the determining step that the audio attributes are different.
36. The reproduction method of Claim 35, wherein said reproducing step further comprises:  
transferring a information reading position to a track position on the information storage medium of the next audio track immediately after the reproduction of the current audio track; and  
starting reproduction of the next audio track after a predetermined waiting time has passed from the start of the transfer of the information reading position.
37. The reproduction method of Claim 36, wherein the waiting time is longer than a time required to change the audio attribute setting.